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Observations of Occultations of Stars by the Moon, made at the Royal Observatory, Greenwich, in the Year 1906.

(*Communicated by the Astronomer Royal.*)

Day, 1906.		Phenomenon.		Telescope.	Power.	Moon's Limb.	Mean Solar Time of Observation.	Observer.
							h m s	
January	4	Disapp.	ξ^2 Ceti	Great Equatorial	670	Dark	4 12 3·57	W. B.
	4	,,	,,	Astrographic Equatorial	225	,,	4 12 2·34	H. F.
	4	,,	,,	Sheepshanks Equatorial	100	,,	4 12 3·03	J. S.
	4	,,	,,	Great Equatorial (Corbett)	120	,,	4 12 3·57	B. E.
	10	,,	*g* Geminorum	Sheepshanks Equatorial	100	Bright	12 3 58·84	V.
February	3 (*c*)	,,	Aldebaran	Astrographic Equatorial	225	Dark	5 22 30·36	H.
	3 (*g*)	,,	,,	Sheepshanks Equatorial	100	,,	5 22 29·70	H. F.
	3 (*g*)	,,	,,	Sheepshanks Equatorial (finder)	100	,,	5 22 31·10	J. S.
	3 (*a*)	Reapp.	,,	Astrographic Equatorial	225	Bright	6 28 34·15	H.
	3	,,	,,	Old Altazimuth	100	,,	6 28 34·23	A. C.
	3	,,	,,	Thompson Equatorial (Hodgson)	100	,,	6 28 (38·02)	D. E.
	3	,,	,,	Sheepshanks Equatorial	100	,,	6 28 34·28	W. S.
	3	Disapp.	W. B. (2) IV. 724	Astrographic Equatorial	225	Dark	8 54 46·89	J. S.
	4	,,	115 Tauri	,, ,,	225	,,	5 24 48·29	W. S.
	4 (*f*)	Reapp.	,,	,, ,,	225	Bright	6 33 10·60	W. S.
	7 (*c*)	Disapp.	ζ Cancri	,, ,,	400	Dark	7 6 59·59	H.
	7 (*e*)	,,	,,	Great Equatorial	670	,,	7 6 58·24	B.
	7 *c*)	,,	,,	Sheepshanks Equatorial	100	,,	7 6 58·01	J. S.
	7	,,	,,	Merz Refractor	250	,,	7 6 57·44	P. M.
	7	,,	,,	Thompson Equatorial	100	,,	7 6 58·24	R. F.

Day, 1906.		Phenomenon.		Telescope.	Power.	Moon's Limb.	Mean Solar Time of Observation. h m s	Observer.
February	7 (*e*)	Disapp.	ζ Cancri (Comes)	Great Equatorial	670	Dark	7 6 58·24	B.
	7	,,	Piazzi VIII. 6	,, ,,	670	,,	7 7 7·12	B.
	7 (*c*)	,,	Piazzi VIII. 6	Sheepshanks Equatorial	100	,,	7 7 5·99	J. S.
	7	,,	Piazzi VIII. 6	Merz Refractor	250	,,	7 7 6·32	P. M.
March	2	,,	θ^2 Tauri	Astrographic Equatorial	225	,,	12 2 16·10	W.
	6	,,	B.D. + 18°, 1752	,, ,,	225	,,	7 38 36·28	W. S.
	29 (*a*)	,,	B.D. + 14°, 657	Sheepshanks Equatorial	100	,,	9 0 12·91	R. C.
April	3	,,	d^2 Cancri	Great Equatorial	670	,,	9 37 28·24	W. S.
	3	,,	,,	Great Equatorial (Corbett)	120	,,	9 37 28·24	W.
	3	,,	,,	Sheepshanks Equatorial	100	,,	9 37 28·66	V.
	3	,,	,,	Sheepshanks Equatorial (Finder)	100	,,	9 37 28·16	A. W.
	4	,,	π^2 Cancri	Astrographic Equatorial	225	,,	6 36 22·99	W. S.
	5	Reapp.	Regulus	Sheepshanks Equatorial	100	Bright	6 42 5·34	A. C.
	6	Disapp.	χ Leonis	,, ,,	100	Dark	7 3 7·95	A. C.
	6	,,	,,	Great Equatorial	670	,,	7 3 7·80	H. F.
	6	,,	,,	Great Equatorial (Corbett)	120	,,	7 3 8·30	G. C.
	6	,,	,,	Astrographic Equatorial	225	,,	7 3 7·50	W. S.
	27 (*a*)	,,	119 Tauri	,, ,,	225	,,	8 49 38·62	H. F.
	27	,,	,,	Sheepshanks Equatorial	100	,,	8 49 38·82	J. S.
	27	,,	,,	Astrographic Equatorial	225	,,	8 49 39·02	W. S.
	27	,,	,,	Old Altazimuth	100	,,	8 49 39·02	B. E.
	27 (*a*)	,,	120 Tauri	Astrographic Equatorial	225	,,	9 27 22·31	H. F.

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Day, 1906.		Phenomenon.	Telescope.	Power.	Moon's Limb.	Mean Solar Time of Observation.	Observer.
						h m s	
April	27	Disapp. 120 Tauri	Sheepshanks Equatorial	100	Dark	9 27 22·11	J. S.
	27	,, ,, ...	Old Altazimuth	100	,,	9 27 23·06	A. W.
September	9 (*c*) (*d*)	Reapp. B.A.C. 1391 ...	Astrographic Equatorial	225	,,	11 58 13·14	W.
	9 (*a*)	Disapp. Aldebaran	,, ,, ...	225	Bright	14 26 41·78	W.
	9	Reapp. ,, ...	,, ,, ...	225	Dark	14 43 31·21	W.
November	5	,, ν Geminorum ...	Sheepshanks Equatorial	100	,,	12 34 43·49	S. E.
	19	Disapp. *o* Sagittarii	Astrographic Equatorial ...	225	,,	5 29 0·96	H. F.
	22	,, W.B. XXI. 1281 ...	Sheepshanks Equatorial	100	,,	6 48 53·21	J. S.
	22	,, ,, ...	Astrographic Equatorial ...	225	,,	6 48 52·16	W. S.
December	5	Reapp. B.A.C. 3029 ...	Sheepshanks Equatorial	60	,,	17 8 1·35	A. C.

(*a*) Instantaneous.
(*c*) Very faint, cloudy.
(*d*) Not a very good observation.
(*e*) Disappeared simultaneously.
(*f*) The observer was looking at the exact point of reappearance.
(*g*) Very windy—clock-beats inaudible.

The apertures of the telescopes used are as follows:—

Great Equatorial	28 inches.	Sheepshanks Equatorial	6¾ inches.
Thompson Equatorial	26 ,,	Great Equatorial (Corbett Telescope) ...	6½ ,,
Merz Refractor	12¾ ,,	Thompson Equatorial (Hodgson)	6 ,,
Astrographic Equatorial (Guiding Telescope)	10 ,,	Old Altazimuth	4 ,,

The initials, H., A. C., B., D. E., W. B., H. F., W., J. S., P. M., W. S., S. E., R. C., V., B. E., R. F., G. C., A. W., are those of Mr Hollis, Mr Crommelin, Mr Bryant, Mr Edney, Mr Bowyer, Mr Furner, Mr Witchell, Mr Storey, Mr Melotte, Mr Stevens, Mr Eddington, Mr Cullen, Mr Vagg, Mr B. Evans, Mr Fowler, Mr Cody, and Mr Witney, respectively.

Royal Observatory, Greenwich.

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The Latitude of the Royal Observatory, Edinburgh.

(*Communicated by Professor F. W. Dyson.*)

The latitude of the Royal Observatory, Edinburgh, is given in the *Nautical Almanac* as 55° 55′ 28″·0. This provisional value was derived from an observation of *a Cassiopeiæ* in the prime vertical by Dr Becker on 1889 October 8.

From 1898 April to the present time observations have been made of Sir David Gill's list of Zodiacal Stars. The observations as far as 1906 February have been reduced in the first instance—

(i) With an assumed latitude, 55° 55′ 30″·0.
(ii) Bessel's Refractions.
(iii) No correction for flexure.

Comparison of the resulting declinations has been made with Newcomb's Fundamental Catalogue, and with the Zodiacal Catalogue published in the Papers of the American Ephemeris, vol. vi. pt. 3, which is also reduced to Newcomb's system.

The results of this comparison are shown in the first four columns of the following table. The observations are very scanty from the pole to Z.D. 30° S., but are plentiful from Z.D. 30° to 70°.

The differences, when the observations are corrected to the Pulkowa system of refractions, are given in column 5.

The observations of flexure made between 1898 April 13 and 1906 February are as follows:—

Date.	Hor. Flexure.	Date.	Hor. Flexure.
	″		″
1898 April 13	+1·20	1905 February 23	+0·88
	+1·12	April 15	+1·03
	+0·98		+1·07
	+0·80	April 19	+0·89
1902 September 16	+1·53		+0·80
1903 August 24	+1·62	November 7	+0·84
	+1·52		
1903 August 27	+1·12	Mean	+1″·10
	+1·14		

The observations during the year 1906 have given a somewhat smaller value. I have taken the correction for flexure, in round figures, as − 1″·00 sin Z.D. When this correction is applied the differences from Newcomb are those of the last column of the following table:—